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Hypertension

Clinical profile and management approaches of resistant hypertension in India



Abhijit Trailokya*, J.S. Hiremath

Master's In Pharmaceutical Medicine, Certification in Diabetology & Cardiology Geriatric Medicine, India

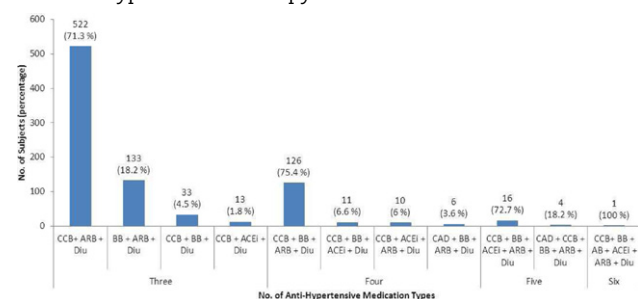
Background: Hypertension remains uncontrolled despite availability of newer drugs, and it accounts for significant morbidity and mortality in India and many developing nations. Resistant hypertension is very common problem in India.

Objective: To evaluate the patient profile, co-morbidities, management with anti-hypertensive medications in resistant hypertension across India.

Method: A total of 4725 uncontrolled hypertensive patients who were on anti-hypertensive medications were evaluated in a cross-sectional, observational study. The observed patterns were recorded with respect to demographics, medical history, anti-hypertensive medications, lifestyle modifications, and concomitant medications.

Result: Out of 4725 subjects, 922 (19.5%) subjects had resistant hypertension. Majority (67.2%) of the patients were males, aged 46–55 (40.5%) and 56–65 years (39.6%). The mean age of the patients was 52.6 (8.25) years. Majority of the patients were residents from the state of Andhra Pradesh (21.4%) and Maharashtra (19.3%). More than 20% were post graduates and 52.2% of the patients were employed. Mean systolic and diastolic blood pressure was 158.83/97.89 mmHg. 78.9% of the patients had reported co-morbidities. Diabetes (46.9%) and dyslipidemia (20.8%) were main ongoing co-morbid conditions.

Most of the patients (79.4%) were on three combination anti-hypertensive therapy followed by four combination (18.1%). 71.3% of the patients used CCB + ARB + diuretics three combination anti-hypertensive therapy.



Proportion of resistant hypertensive patients taking three or more anti-hypertensive medications (n = 922).

Conclusion: Resistant hypertension is most often due to a failure to treat hypertension appropriately. The preferred anti-hypertensive therapy for resistant hypertension patients is triple combination of anti-hypertensive regimen ARB + CCB + Diuretics. Patients may require four or more classes of antihypertensive drugs, some at high doses, to achieve control.

Clinical profile and management approaches of uncontrolled hypertension in India



Abhijit Trailokya*, J.S. Hiremath

Master's In Pharmaceutical Medicine, Certification in Diabetology & Cardiology, Geriatric Medicine, India

Background: Hypertension remains uncontrolled despite availability of newer drugs, and it accounts for significant morbidity and mortality in India and many developing nations.

Objective: To evaluate the patient profile, co-morbidities, management with anti-hypertensive medications in uncontrolled hypertension patients and also to determine the number of patients with resistant hypertension across India.

Method: A total of 4725 uncontrolled hypertensive patients who were on anti-hypertensive medications were evaluated in a cross-sectional, observational study. The observed patterns were recorded with respect to demographics, medical history, anti-hypertensive medications, lifestyle modifications and concomitant medications.

Results: Majority of the patients in the study were males (71.4%). Most of the patient population was either overweight (46%) or obese (24.8%). All patients had ongoing co-morbid condition of diabetes, dyslipidemia, chronic kidney disease, congestive heart failure, hormone replacement therapy in females and ischemic heart disease. Diabetes (33.7%) and dyslipidemia (10.5%) were the two main co-morbidities observed largely. Most of the patients were treated with mono (45.4%), dual (31.7%) or triple combination (8.6%) therapy of anti-hypertensive agents. ARB was the most preferred agent as monotherapy (70.6%) and also the most common component of dual and triple combination anti-hypertensive agent.

Conclusion: Co-morbidities such as dyslipidemia or diabetes were majorly associated with uncontrolled hypertension. Monotherapy was leading trends of anti-hypertensive therapy followed by dual and triple combination therapy. The preferred choices for mono therapy, dual and triple combination of anti-hypertensive regimens were ARBs, ARB + CCB (calcium channel blocker), and ARB + CCB + diuretics, respectively.